



MASTER METALS, INC.
BACKGROUND SAMPLING RESULTS
HOLMDEN AVENUE
CLEVELAND, OHIO

Prepared By:

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EXHIBITS

EXHIBIT 1	PHOTO JOURNAL
EXHIBIT 2	CHAIN-OF-CUSTODY
EXHIBIT 3	LABORATORY ANALYSIS RESULTS
EXHIBIT 4	STATISTICAL DATA

1.0 INTRODUCTION

On October 14, 1992, Master Metals, Inc. (MMI) entered into a consent agreement with the Ohio EPA. As part of the consent agreement, MMI was required to collect a minimum of twelve background samples at the Ogle property (1157, 1159 and 1167 Holmden Avenue) and its vicinity. The location of the Ogle property is shown in Figure 1.1.

The background samples were taken at the Ogle property on December 2, 1992. Mr. Paul Dolensky of the Ohio EPA was on-site to witness the sampling activities. A total of thirteen samples were taken to define the background concentrations of cadmium and lead.

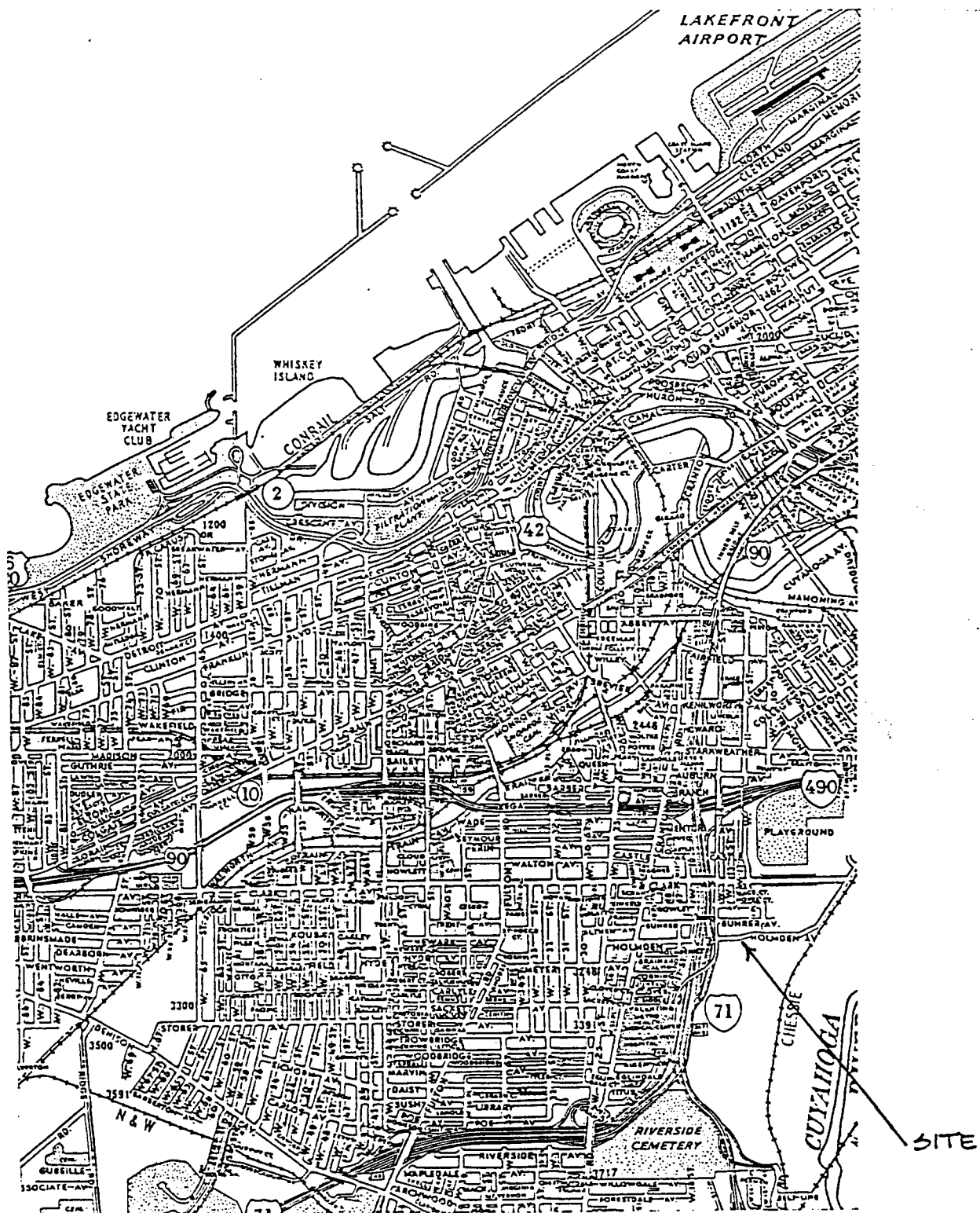


FIGURE 1.1 - SITE LOCATION

2.0 SAMPLING ACTIVITIES

Soil sampling of the Ogle property and its vicinity was conducted on December 2, 1992. At 1:00 p.m., Messrs. Dave Boyes and Anthony Dattilo of Environment One, Inc. (E1) arrived at the Ogle property. Mr. Paul Dolensky of Ohio EPA was scheduled to meet with E1 representatives at the site.

Sampling began at approximately 1:20 p.m. Sampling activities were completed at approximately 2:20 p.m.

2.1 Sample Locations

The background sample locations are shown in Figure 2.1. The sampling points were located by determining areas which visually appeared unaffected. Points that showed no visual stress to surface vegetations, and were removed from the roadway or potential obstructions (fire, hydrants, retaining walls, etc.) were selected as suitable background sites.

2.2 Sample Collection

Samples were collected from each point using a pre-cleaned stainless steel trowel. The vegetation was first removed from each sample point using a precleaned steel spade. Once the vegetation was removed, the trowel was used to remove a sample to a depth of approximately six to eight inches (6.0"-8.0") below grade. The sample was transferred from the trowel to a clean pre-labeled glass bottle. The bottle was capped with a polyethylene lined lid. The sample was then placed into a chilled insulated cooler for transport back to the E1 laboratory. A new precleaned trowel was used for each sample point.

Photographs of each sample are provided in Exhibit 1. Three of the samples (MMH-011, MMH-012, MMH-013) were split with one-half going to Ohio EPA, and one-half being retained by E1. At the completion of sampling the removed vegetation was replaced over each sample point.

2.3 Sample Blanks

Three blanks were prepared for this sampling activity. A trip blank was prepared by placing approximately 200 ml. of deionized (DI) water into a 200 ml. glass sample container. The capped container was placed into the sample receiving cooler and was transported to the field. A field blank was prepared by pouring approximately 200 ml. of (DI) water into a 200 ml. glass bottle while at the Ogle property.

The container was capped and placed into the sample receiving cooler. An equipment blank was collected by allowing (DI) water to trickle over a cleaned stainless steel trowel. The water was collected in a 200 ml. glass bottle. The bottle was capped upon filling. The capped bottle was then placed into the sample receiving cooler.

2.4 Sample Descriptions

The soil samples taken as background samples were all generally similar in appearance. The samples were typically dark brown sandy soils. Several samples contained fragmented brick and other fill materials. A brief description of each sample is given below:

SAMPLE I.D.

VISUAL DESCRIPTION

MMH-001	Brown/black sandy fill soil.
MMH-002	Brown sandy soil.
MMH-003	Brown sandy soil.
MMH-004	Tan/brown/black sandy fill soil.
MMH-005	Brown/black fill soil, pea gravel, black fragmented fill.
MMH-006	Brown sandy soil, red brick fragment.
MMH-007	Brown/black sandy soil, tan brick fragment.
MMH-008	Gray/brown soil.
MMH-009	Brown soil.
MMH-010	Brown/black sandy soil.
MMH-011	Brown/black sandy soil, rock.
MMH-012	Brown/black sandy soil.
MMH-013	Brown/black sandy soil.

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3.0 LABORATORY ANALYSIS

The samples were returned to the E1 laboratory under chain-of-custody procedures. A copy of the custody form is provided in Exhibit 2.

Laboratory analysis of each sample for the total metals cadmium and lead was conducted by USEPA Method 6020. The results of the analysis are given in Exhibit 3.

4.0 ANALYSIS RESULTS

The analysis results reflect the background concentrations of cadmium and lead in the vicinity of the Ogle Property. The variation in the reported concentrations appears consistent with the visually observed heterogeneous nature of the soil types encountered. Construction fill materials appeared randomly throughout the sample points.

The statistical averaging of the data is provided in Exhibit 4. Sample MMH-007 was not included in the average at the request of Mr. Paul Dolensky of Ohio EPA. Sample MMH-005 exhibited the single highest concentration of lead. However, the area from which the sample was taken accurately reflected the heterogeneous nature of the materials located within the sample area.

The statistical background concentration limit for cadmium was calculated to be 2.6 ppm. The statistical background concentration limit for lead was calculated to be 8260 ppm. The limit was calculated using an arcsine transformation to normalize the data.

ENVIRONMENT ONE, INC.

7777 Wall Street
Valley View, Ohio 44125
(216) 524-0888
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Date Received: 12/02/92

Date Reported: 12/15/92

Client Sample I.D.: OGLE Background

Samples

E1 Sample I.D.: M9202-1-16

Sampled By: E1 (12/2/92)

P.O.#: _____

Sample Description: _____

1-13- dark brown soils

14-16- clear liquids

Master Metals
2163 W. 3rd Street
Cleveland, Ohio 44113

<u>Client Sample I.D.</u>	<u>EOI Sample I.D.</u>	<u>Cadmium (Total)</u>	<u>Lead (Total)</u>
MMH-001	M9202-1	1.41 ppm	266 ppm
MMH-002	M9202-2	0.88 ppm	126 ppm
MMH-003	M9202-3	2.44 ppm	691 ppm
MMH-004	M9202-4	0.56 ppm	81.3 ppm
MMH-005	M9202-5	2.59 ppm	17500 ppm
MMH-006	M9202-6	1.16 ppm	276 ppm
MMH-007	M9202-7	0.91 ppm	121 ppm
MMH-008	M9202-8	1.24 ppm	94.4 ppm
MMH-009	M9202-9	1.11 ppm	171 ppm
MMH-010	M9202-10	1.59 ppm	672 ppm
MMH-011	M9202-11	1.14 ppm	154 ppm
MMH-012	M9202-12	1.86 ppm	386 ppm
MMH-013	M9202-13	1.01 ppm	123 ppm
MMH-Trip Blank	M9202-14	<1.0 ug/L	<1.0 ug/L
MMH-Field Blank	M9202-15	<1.0 ug/L	<1.0 ug/L
MMH-Equipment Blank	M9202-16	<1.0 ug/L	<1.0 ug/L

Practical Quantitation Limit (M9202-1-13) - 0.02 mg/L

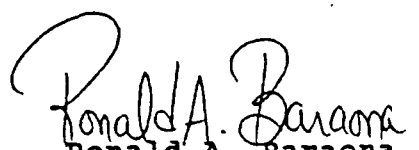
Practical Quantitation Limit (M9202-14-16) - 1.0 ug/L

Recovery of Cadmium Standard (M9202-1-8) - 100 %

Recovery of Cadmium Standard (M9202-9-16) - 101 %

Recovery of Lead Standard (M9202-1-8) - 97 %

Recovery of Lead Standard (M9202-9-16) - 102 %


Ronald A. Baraona
LABORATORY MANAGER

RAB/kjt

Analytical Services & Environmental Consulting

MASTER METALS
HOLMGREN AVENUE
SAMPLING DATE: DECEMBER 2, 1992
WITHOUT #7

LOCATION	Cd (ppm)	ARCSIN
1	1.41	0.0027
2	0.88	0.0023
3	2.44	0.0034
4	0.56	0.0020
5	2.59	0.0035
6	1.16	0.0025
8	1.24	0.0026
9	1.11	0.0025
10	1.59	0.0029
11	1.14	0.0025
12	1.86	0.0031
13	1.01	0.0024
AVERAGE	1.42	0.0027
VARIANCE	0.34	0.0000
STND DEV	0.58	0.0004
LIMITS	2.59	0.0036
	1000000	0.0036

LOCATION	Pb (ppm)	ARCSIN
1	266	0.0327
2	126	0.0225
3	691	0.0526
4	81	0.0181
5	17500	0.2654
6	276	0.0333
8	94	0.0195
9	171	0.0262
10	672	0.0519
11	154	0.0249
12	386	0.0393
13	123	0.0222
AVERAGE	1712	0.0507
VARIANCE	2.3E+07	0.0043
STND DEV	4765	0.0657
LIMITS	11241	0.1820
ARCSIN		
LIMIT	8260	0.1820
	1000000	